



Updated June 8, 2006

**CALIFORNIA DEPARTMENT OF HEALTH SERVICES
LABORATORY BIOSAFETY GUIDELINES FOR HANDLING AND PROCESSING
SPECIMENS OR ISOLATES OF INFLUENZA A (H5N1) STRAINS
(Adapted from the 2005 US Department of Health & Human Services Pandemic Influenza Plan)**

- Commercial antigen detection testing for suspected novel influenza cases may be conducted under Biosafety Level (BSL)-2 containment conditions if a Class II biological safety cabinet is used.
- Clinical specimens from suspected novel influenza cases may be tested by Reverse Transcriptase-Polymerase Chain Reaction (RT-PCR) using standard BSL-2 work practices in a Class II biological safety cabinet.
- If a specimen is confirmed positive for influenza A (H5N1) by RT-PCR, additional testing should be performed only under BSL-3 conditions with enhancements at the CDHS Viral and Rickettsial Disease Laboratory and the Centers for Disease Control and Prevention (CDC). Both the Local Health Department and the CDHS Division of Communicable Disease Control Duty Officer should be contacted immediately.
- A detailed description of recommended facilities, practices, and protective equipment for the various laboratory biosafety levels can be found in the CDC/National Institutes of Health Biosafety in Microbiological and Biomedical Laboratories (BMBL) manual at www.cdc.gov/od/ohs/biosfty/bmbl4/bmbl4toc.htm
- BSL-3 with enhancements and Animal Biosafety Level 3 include: all BSL-3 practices, procedures, and facilities, plus the use of negative-pressure, HEPA-filtered respirators or positive air-purifying respirators, and clothing change and personal showering protocols. Additional practices and/or restrictions may be added as conditions of United States Department of Agriculture (USDA)-Animal and Plant Health Inspection Services (APHIS) permits. Registration of personnel and facilities with the Select Agent Program is required for work with highly pathogenic avian influenza (HPAI) viruses, which are classified as agricultural select agents.
- Highly pathogenic avian influenza A (H5) and A (H7) viruses are classified as select agents. USDA regulations require that these viruses (as well as exotic low pathogenic avian influenza viruses) be handled under BSL-3 laboratory containment conditions, with enhancements. Laboratories that work with these viruses must be certified by USDA.
- Laboratories should not perform virus isolation on respiratory specimens from patients who may be infected with an avian influenza virus unless stringent BSL-3 enhanced containment conditions can be met and diagnostic work can be kept separate from studies with other human influenza A viruses (i.e., H1 or H3). Therefore, respiratory virus cultures should not be performed in most clinical laboratories.

**PLEASE REPORT ANY SUSPECT OR LABORATORY-CONFIRMED CASE OF
AVIAN INFLUENZA (H5N1) TO BOTH THE LOCAL HEALTH DEPARTMENT AND
CDHS IMMEDIATELY**